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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,776

10/13/2005

Helmut Kinder

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11/04/2008

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EXAMINER

BUEKER, RICHARD R

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

11/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/533,776	KINDER, HELMUT	
	Examiner	Art Unit	
	Richard Bueker	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
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| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/16/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Claims 5-7, 20-22 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 5, the phrases “the thickness profile” and “the delivered high temperature superconductor material” are indefinite because they lack proper antecedent basis. In claim 6, the phrases “the angle” and “the slope” are indefinite because they lack proper antecedent basis. In claim 20, the phrases “the location” and “the measuring light beam” are indefinite because they lack proper antecedent basis. In claim 22, the phrase “a means to connect . . . and for holding a stock of high temperature superconductor material sequentially with the conveyer” is unclear vague and indefinite. In claim 25, the phrase “the trace” is indefinite because they lack proper antecedent basis.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10, 11, 16-18, 21 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakamura (JP 02-0930062). Nakamura (see abstract and Figs. 1-8) discloses an apparatus for

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continuous evaporation of a high temperature superconductor onto a substrate in a vacuum comprising a refilling device, an evaporation device which evaporates a coating material in an evaporation zone with a beam of energy transferring medium, a conveyor which transports the coating material from the refilling device to the evaporation zone.

Regarding the claim recitations related to the particular type of coating material to be used in the apparatus, such as grain size or composition, it is noted that the purpose to which a claimed apparatus is to be put and expressions relating the apparatus to its contents during its intended operation are not significant in determining patentability of the apparatus claim (*Ex parte Thibault*, 164 USPQ 666). The inclusion of the material worked upon by a machine as an element in a claim may not lend patentability if the claim is not otherwise allowable (*In re Young*, 25 USPQ 69); (see also *In re Rishoi*, 94 USPQ 71; and *Ex parte Masham*, 2 USPQ2d 1643). The laser beam of Nakamura heats the powder to the vaporization temperature prior to vaporizing it, and therefore it preheats the powder as recited in claim 4. Regarding claim 18, see Fig. 6 of Nakamura.

Claims 12-15 are rejected under 35 U.S.C. 103(a) as obvious over Nakamura (JP 02-0930062) taken in view of Powell (5,945,163) and/or Bell (6,383,301). Powell (see Figs. 2, 5 and 6) and Bell (see Figs. 7 and 8) teach the use of a powder conveyor such as a vibration conveyor, a rotating turntable and a screw conveyor. It would have been obvious to one skilled in the art to use a conventional powder conveyor of the types taught by Powell and/or Bell to supply the powder of Nakamura.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as obvious over Nakamura (JP 02-0930062) taken in view of Hammond (2003/0054105). Hammond (see Fig. 3

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and paragraph 43) teaches the use of atomic absorption spectroscopy for monitoring the vaporization rate of a vapor source. It would have been obvious to one skilled in the art to use atomic absorption spectroscopy as taught by Hammond to monitor the vapor flow rate of Nakamura.

Claims 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura (JP 02-0930062). Nakamura (see abstract and Figs. 1-8) discloses a method for evaporating a high temperature superconductor coating onto a substrate in a vacuum chamber comprising the steps of (a) continuously conveying a granulate of a high temperature superconductor material into an evaporation zone and (b) operating a beam of an energy transferring medium so that the delivered granulate is evaporated essentially without residues within the evaporation zone. The particular size of the granulate used is prima facie obvious in the absence of a convincing showing of unexpected results commensurate in scope with the claims. Page 4, lines 9-11 of the Japanese text of Nakamura indicates that the superconductor is yttrium barium copper oxide perovskite as recited in claim 26.

Claims 1-13, 16, 21 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hill (DE 2513813). Hill (see Fig. 1) discloses an apparatus for continuous evaporation of a coating material onto a substrate in a vacuum comprising a refilling device, an evaporation device which evaporates a coating material in an evaporation zone with a beam of energy transferring medium, a conveyor which transports the coating material from the refilling device to the evaporation zone. Regarding the claim recitations related to the particular type of

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coating material to be used in the apparatus, such as grain size or composition, it is noted that the purpose to which a claimed apparatus is to be put and expressions relating the apparatus to its contents during its intended operation are not significant in determining patentability of the apparatus claim (Ex parte Thibault, 164 USPQ 666).

The inclusion of the material worked upon by a machine as an element in a claim may not lend patentability if the claim is not otherwise allowable (In re Young, 25 USPQ 69); (see also In re Rishoi, 94 USPQ 71; and Ex parte Masham, 2 USPQ2d 1643). Hill teaches that his slide 21 can execute a shaking motion which reads on the vibration conveyor of claim 12. Regarding claims 21 and 22, the hopper 23 and slide 21 are two separate refilling devices.

Claims 12-15 are rejected under 35 U.S.C. 103(a) as obvious over Hill (DE 2513813) taken in view of Powell (5,945,163) and/or Bell (6,383,301). Powell (see Figs. 2, 5 and 6) and Bell (see Figs. 7 and 8) teach the use of a powder conveyor such as a vibration conveyor, a rotating turntable and a screw conveyor. It would have been obvious to one skilled in the art to use a conventional powder conveyor of the types taught by Powell and/or Bell to supply the powder of Hill.

Claims 1-13 and 16-27 are rejected under 35 U.S.C. 103(a) as obvious over Hill (DE 2513813) taken in view of Hammond (2003/0054105). Hammond (see Fig. 3) teaches that a superconductor material can desirably be applied to a substrate by an electron beam evaporation vapor source. It would have been prima facie obvious to one skilled in the art to use the prior art electron beam vapor source of Hill to vaporize one or more of the superconductor materials of Hammond.

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Claims 12-15 are rejected under 35 U.S.C. 103(a) as obvious over Hill (DE 2513813) taken in view of Hammond (2003/0054105) and taken in further view of Powell (5,945,163) and/or Bell (6,383,301). Powell (see Figs. 2, 5 and 6) and Bell (see Figs. 7 and 8) teach the use of a powder conveyor such as a vibration conveyor, a rotating turntable and a screw conveyor. It would have been obvious to one skilled in the art to use a conventional powder conveyor of the types taught by Powell and/or Bell to supply the powder of Hill.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (571) 272-1431. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard Bueker/
Primary Examiner, Art Unit 1792